

MATERIAL HANDLING

Quality, Health, Safety & Environmental Manual:

Document No: SM-73

Welding/Hot Working

Toyota Material Handling UK Ltd's (TMHUK) policy detailing the management of the control of risks from activities such as welding and hot working.

TMHUK employ both regular and sporadic welders, this policy is applicable to both.

Regular welders - weld for most of their shift and carry out different types of welding and other associated activities in the same day, depending on the requirements of their job. Their exposure to welding fume will be regular and of a significant duration or high intensity. They will require adequate controls to protect them from the risk of developing occupational lung diseases.

Sporadic welders (non-dedicated) - carry out welding infrequently and when it is incidental to their main operation. Engineered fume controls will not normally be expected for occasional welding carried out less than once each week and lasting less than 1 hour. In these situations, ensure that respiratory protective equipment (RPE) and good general ventilation is provided to control exposure to welding fume. But, you must also consider the protection of others nearby and ensure the general ventilation is effective at removing and dispersing the welding fume.

For example, a TMHUK Technician wearing RPE with good general ventilation in the workplace, carrying out an occasional short welding job on a forklift truck with a broken exhaust support bracket, would meet the minimum requirement for compliance.

Safety & Environment

- 1.0 Generic risk assessments have been carried out in respect of Welding/Cutting and grinding tasks. Safe Working Practices (SWP's), training and work instructions etc. that are in place are a direct result of these generic assessments e.g. SWP's Hot Working & Carrying and Working with Welding Gases Safely.
- 1.1 The controls identified must be adopted at all times. Any requested diversions from the documented SWP's must be agreed in writing with the quality, health, safety & environmental (QHSE) team.
- 1.2 Both dedicated and non dedicated welders are obliged to carry out task specific assessments of each job undertaken, these will not normally be documented unless the work is not covered or not covered adequately by the existing risk assessments
- 1.3 All hazardous substances in use have been assessed and are available on the company intranet and website. Welders must have access to and be familiar with, the COSHH hazard data sheets in general and specifically those of direct relevance to welding processes e.g. gases

Training

- 2.0 All welding team members are trained in accordance to TMHUK's training policy SM-24 Training and will undergo training/test modules. These must be completed before they are allowed to carry out any unsupervised welding repairs ie. the welder must be tested and certificated.
- 2.1 All dedicated mobile welders must attend the following external courses;

I. Inspection.

Date of Issue: April 2024	Page 1 of 4	Revision 1
---------------------------	-------------	------------

Quality, Health, Safety & Environmental Manual:

Document No: SM-73

Welding/Hot Working

- II. Gas Safety.
- III. Equipment Safety.

- 2.2 No operative, whatever their core task/skills, will be allowed to change or mount grinding wheels, to fixed or portable grinders unless suitably trained.
- 2.3 In addition to the mandatory training courses, some specific instructions on safety will be given in the "Safe Working Practices" SWP e.g., Carrying and Working with Welding Gases Safely.

Personal Protection Equipment (PPE)

- 3.0 PPE is provided and must be worn as instructed and as appropriate. See SM-23 and SWP-32 Personal Protective Equipment. The minimum requirement for welding specific PPE is:-
- I. Flame retardant Overalls.
 - II. Apron.
 - III. Gloves/gauntlets.
 - IV. Boots/shoes.
 - V. Goggles/Face masks fitted with appropriate lenses.
 - VI. Respiratory Protective Equipment.

Other PPE may be required as the result of a task specific Risk Assessment.

Tools & Equipment

- 4.0 Welding equipment e.g. gauges, hoses torches, arc and MIG/TIG welders are on a planned maintenance schedule. In addition users are to carry out a full visual inspection of all welding equipment on a daily basis to determine that there are no obvious signs of wear or damage. This check/inspection need not be documented.
- 4.1 Welding gases, filler materials (rods and wires etc.) are not of themselves an environmental issue. However when used, they have the potential to generate harmful gases, fume and particulates. The level of use, the parent metals involved and operating conditions (a well ventilated environment is always required as a basic minimum) coupled with the instructions on use, maintenance and ventilation, reduce the risk of any harm to persons and the environment to the lowest practicable limits and no further action is required.
- 4.2 All portable electrical tools will be inspected/tested in accordance with the SWP "Working with Electricity" see also the procedure "Electricity at Work" in the company's Safety Manual.

Customer Premises

- 5.0 Many customers "Terms and Conditions for Contractors" require that a "Permit to Work" be obtained before tasks involving any of the above equipment/processes can commence. Team members must ensure that they are aware of the existence of such terms and conditions before starting work of any description, not just "Hot Work".
- 5.1 Before starting any "Hot Work" the customer should be advised of the nature of the work about to be undertaken and any perceived dangers, in order that any extra precautions necessary may be taken.

- 5.2 A safe working area must be selected before commencing any work. Of particular importance is the proximity of flammable materials. All combustible material should be made safe or removed from the area. If this is not possible another work area must be sourced.

TMHUK Premises

- 6.0 On TMHUK premises where there is a requirement for a designated welder Local Exhaust Ventilation (LEV) systems will be installed with adequate particulate filtering to provide clean air for the benefit of the individual and the environment generally.
- 6.1 LEV systems installed will require a planned maintenance to ensure continued efficiency and thereby protection for all concerned.
- 6.2 No operative, whatever his core task/skills, will be allowed to change or mount grinding wheels, to fixed or portable grinders unless suitably trained. (should this be in SM-24)
- 6.3 Storage and use of welding Gases should be in accordance with the SWP-30 Carrying and Working with Welding Gases.

Vehicles

- 7.0 Mobile welders are issued with a vehicle which is adapted according to company specification. Specification includes racking system, suitable ventilation and displaying the correct safety/warning signs, eg. the external ADR labels for transport category 2 "Flammable" and category 3 "Asphyxiant/Oxidising". NOTE: All such warning labels should be removed/covered when no gases are "on board". Internal "No Smoking" signs must also be affixed.
- 7.1 The fire extinguishers provided on welding vehicles must be the subject of an annual inspection/ service plan. The servicing company may be selected locally but must be able to conduct its service in accordance with the relevant standard.
- 7.2 Replacement extinguishers are available from Leicester Stores.
- 7.3 Where diesel fuel oil is carried to power a mobile generator (includes the generators own tank) the following conditions must be met:-
- I. The engineer/welder must be instructed in the safe use and disposition of such fuels.
 - II. The container must be approved for the storage of petroleum spirit and be adequately restrained to prevent accidental spillage during transit. No more than 5ltr should be carried in addition to the generators own tank.
 - III. A quantity (minimum 18kg) of Fullers Earth, or similar absorbent material should be carried to assist in containing any spillage.
 - IV. An appropriate COSHH Hazard Data and the associated Risk Assessment sheets must be provided.
 - V. Disposal will be in accordance with the COSHH Data Sheet.
- 7.4 The Gases, filler materials (rods and wires etc.) are not of themselves an environmental issue. However when used, they have the potential to generate harmful gases, fume and particulates. The level of use, parent metals involved and operating conditions (normally outside

environment) coupled with the instructions on use and ventilation reduce the risk of any harm to persons and the environment to the lowest practicable limits and no further action is required.

Records

- 8.0 Evidence of all training must be recorded in accordance with SM-24 Training.
- 8.1 All maintenance and associated records of work equipment, includes gas equipment and fire extinguishers, is in accordance with SM-25 Work Equipment, SM-17 Fire Precautions and SWP-30 Carrying and Working with Welding Gases.
- 8.2 Maintenance and records of portable electrical equipment is in accordance with the Safety Manual procedure SM-28 Electricity at Work, for additional advice see SWP-11 Working with Electricity.